

Appl. No. 10/506,757
Amdt. dated January 4, 2006
Reply to Office Action of October 4, 2005

REMARKS

Claims 10-18 are pending. Claims 10-13 and 16-18 have been rejected under 35 U.S.C. §102. Claims 14 and 15 have been objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims. Claims 10-18 remain for consideration upon entry of the present amendment. No new matter has been added.

The Examiner has objected to the substitute specification because of various alleged informalities. In particular, the Examiner alleges that the title is not descriptive and has required that the title be changed. The Examiner has also required changes to paragraphs 0029 and 0033. Accordingly, Applicants have amended the title to be "Centrifugal Separator with Conical Pump Inlet." Applicants have also amended paragraphs 0029 and 0033 herein to address the alleged informalities. Reconsideration of the Examiner's objection is therefore, respectfully requested.

Claims 10-13 and 16-18 are rejected under 35 U.S.C. §102(b) as allegedly being unpatentable over United States Patent No. 5,484,282 to Trawoger et al. (hereinafter referred to as the '282 patent). The rejection is traversed and reconsideration is respectfully requested.

The '282 patent is directed to a separator for separating a mixture of solid and liquid, such as waste water originating from dental practice, with an inlet for the mixture that is to be separated, with an outlet for the liquid that has been separated off with a centrifuge having an inlet opening on the top, a transfer opening associated with the outlet for the liquid and a drain for the solids, with a removable settling tank that is arranged beneath the outlet for the solids and used for the solids that run off after each centrifuging phase as a result of gravity. In this separator, the residual liquid is collected in the settling tank, from which the remaining liquid is moved upwards and into the mixture inlet by means of a pump.

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Referring to Figures 4 and 6 reproduced below, the '282 patent discloses in pertinent part:

"The pump housing 13 is secured to the underside of the installation housing 4 and has a projecting connector 16 that extends upwards through the opening 25 in the installation housing 4, so that the connecting line 19 can be installed once the pump 9 and the centrifuge 5 have been secured. A central suction pipe 14 extends downwards from the pump housing 13; in its upper part this tapers conically; in the middle it is cylindrical; and in the bottom part it has openings around its periphery. A protective screen 15 is fixed at least to the side of the mixture inlet 2 on the suction pipe 14. The pump 9 incorporates an impeller wheel 17 that comprises a hub 41 that is mounted on the drive shaft 46, vanes 42 that extend radially from this, and a hollow truncated cone 18 that extends downwards into the conical part of the suction pipe 14. The hollow truncated cone 18 is secured to the lower narrow side of the vanes 42 that project axially downward beyond the hub 41. The diameter of the hub 41, the lower surface of which is conical, is approximately the same as the maximum diameter of the truncated hollow cone 18. Slits 43 are formed between the vanes 42 through the mounting of the truncated hollow cone 18 on the vanes 42, between the hub 41 and the upper edge of the truncated hollow cone 18, and these force the liquid that is sucked out of the settling tank into the circulating chamber 45 that is formed in the pump housing 13."

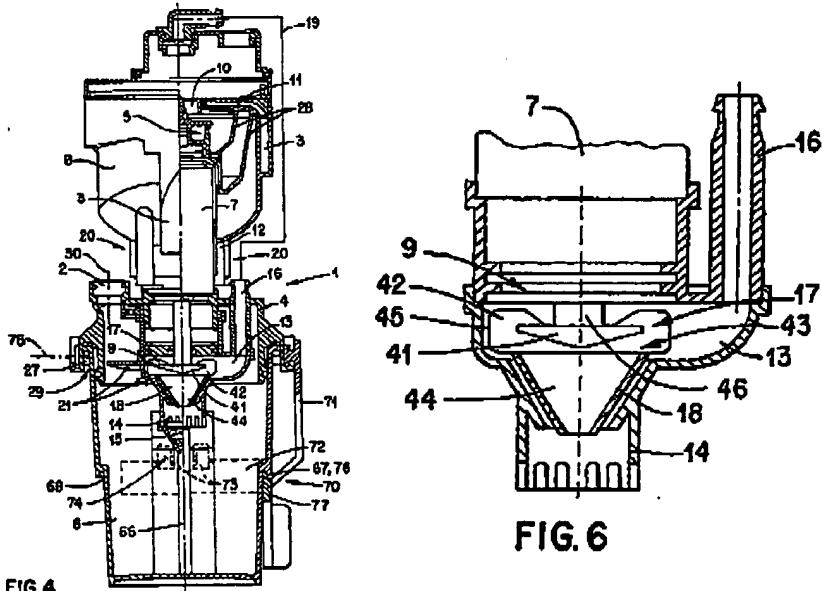


FIG. 6

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Unlike the invention recited in claim 10, and contrary to the Examiner's statements, the '282 patent does not disclose, teach or suggest a centrifugal separator wherein a pumping member has on an outside surface thereof, a pumping surface facing away from the rotational axis (R), extending mainly rotational-symmetrically around the rotational axis (R) and being arranged to have contact with a free liquid surface on said liquid body in an area extending around the pumping member. Instead, the '282 patent discloses a hollow truncated cone 18 mounted on vanes 42 and positioned in a suction housing 14, an open end of which extends into the liquid located within a tank such that during operation, liquid travels through the housing and along the outside surface of the cone to the circulating chamber 45 in the pump housing. Accordingly, the pumping member of the '282 patent, which would be the truncated cone, never contacts a free liquid surface.

Because the '282 patent fails to disclose, teach or suggest a centrifugal separator wherein a pumping member has on an outside surface thereof, a pumping surface facing away from the rotational axis (R), extending mainly rotational-symmetrically around the rotational axis (R) and being arranged to have contact with a free liquid surface on said liquid body in an area extending around the pumping member, claim 10 is not anticipated by the '282 patent. For at least these reasons claim 10 is allowable, and Applicants respectfully request that the Examiner withdraw the rejection of claim 10.

Dependent claims, by definition, further define the subject matter of the independent claims from which they depend. Claims 11-13 and 16-18 depend from Claim 10. Because Claim 10 is believed to be allowable for at least the reasons presented above, Claims 11-13 and 16-18 are therefore also believed to be allowable. Consequently, Applicant respectfully requests that the rejections of Claims 11-13 and 16-18 be withdrawn.

The Examiner objects to claims 14 and 15 as being dependant on a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. The Applicant chooses not to incorporate the subject matter of claims 14 and 15 into the base claim, at this time, because Claim 10 is believed to be allowable for at least the reasons presented above. Claims 14 and 15 are

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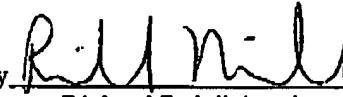
therefore also believed to be allowable. Consequently, Applicant respectfully requests that the objection regarding Claims 14 and 15 be withdrawn.

Applicants believe that the foregoing amendments and remarks are fully responsive to the Office Action and that the claims herein are allowable. In view of the foregoing points that distinguish Applicants' invention from those of the prior art and render Applicants' invention novel, Applicants respectfully request that the Examiner reconsider the present application, remove the rejections, and allow the application to issue.

If the Examiner believes that a telephone conference with Applicants' attorneys would be advantageous to the disposition of this case, the Examiner is invited to telephone the undersigned.

Applicants believe that no fees are due with the submission of this Amendment. If any charges are incurred with respect to this Amendment, they may be charged to Deposit Account No. 503342 maintained by Applicants' attorneys.

Respectfully submitted,

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